

## ABSTRACT OF THE DISCLOSURE

A sidestream gas sampling system that includes a conduit that communicates a flow of gas to a gas measurement site. A gas measurement assembly measures a constituent of the flow of gas at the gas measurement site. A capillary tube communicates the flow of gas from the gas measurement site. A differential pressure transducer in fluid communication with first and second portions of the capillary tube measure a pressure differential between these two portions. A controller is coupled to the differential pressure transducer to measure the flow of gas based on the output of the differential pressure transducer and to control the flow of gas via a flow generator coupled to the gas flow path.